doubtnut
India's Number 1 Education App

BIOLOGY

BOTANY AND ZOOLOGY FOR NEET AND AIIMS

BODY FLUIDS AND CIRCULATION

Exercise I Blood

1. Which of the following is true for blood ?

A. It is opaque and highly alkaline fluid

B. It is highly acidic fluid

C. It is slightly alkaline fluid

D. It is red coloured, opague and slightly acidic fluid

Answer: C

Watch Video Solution

2. The study of blood is called

A. Haematocrit

B. Haematology

C. Plasmatology

D. Haemocytology

Answer: B

Watch Video Solution

3. Blood plasma consists of 8-10 per cent of solutes, in which proteins contribute

A. 6-8 per cent

B. 8-10 per cent

C. 4-5 per cent

D. 2-3 per cent

Answer: A

Watch Video Solution

4. Serum is plasma

A. without proteins

B. without clotting factors

C. with erythrocytes

D. with thrombocytes

Answer: B

Watch Video Solution

5. A healthy individual has ___ of haemoglobin in every 100 ml of blood

A. 9-10 grams

B. 10-12 milli grams

C. 12-16 grams

D. 18-20 milli grams

Answer: C

 Watch Video Solution

6. The smallest and most abundant serum proteins are

A. Albumins

B. Globulins

C. Clotting factors

D. Immunoglobulins

Answer: A

 Watch Video Solution

7. Which of the following is.true for all types of leucocytes?

A. There are nucleated and long lived

B. There are colourless and relatively more in number

C. These are granulated and phagocytic

D. These are nucleated and generally short lived

Answer: D

Watch Video Solution

8. Which leucocytes of the following resist infections and are also associated with allergic reactions?

A. Eosinophils

B. Basophils

C. Monocytes

D. Lymphocytes

Answer: A

Watch Video Solution

9. Thrombocytes are cell fragments produced from

A. dendritic cells

B. myeloblasts

C. megakaryocytes

D. macrophages

Answer: C

Watch Video Solution

10. Phagocytic cells of blood are

A. Neutrophils only

B. Acidophils only

C. Monocytes only

D. Neutrophils and monocytes

Answer: D

 Watch Video Solution

11. Which one of the following organs can be called a sort of blood bank for human body

A. Heart

B. Liver

C. Spleen

D. Lungs

Answer: C

Watch Video Solution

12. Which of the following cells does not exhibit phagocytic activity?

A. Monocytes

B. Neutrophil

C. Basophil

D. Macrophage

Answer: C

 Watch Video Solution

13. One of the common symptoms observed in people infected with Dengue fever is significant

A. decrease in RBC count

B. significant decrease in WBC count

C. significant decrease in platelets count

D. significant increase in platelets count.

Answer: C

Watch Video Solution

14. Which one of the following types of cells lack nucleus in humans?

A. RBC

B. Neutrophils

C. Eosinophils

D. Erythrocytes

Answer: A

 Watch Video Solution

15. Which one of the following blood cells is involved in antibody production?

A. B-Lymphocytes

B. T-Lymphocytes

C. RBC.

D. Neutrophils

Answer: A

Watch Video Solution

16. Agranulocytes responsible for immune response of the body are

A. basophils

B. neutrophils

C. eosinophils

D. lymphocytes

Answer: D

 Watch Video Solution

17. Which of the following statements is incorrect?

A. A person of 'o' blood group has anti 'A' and anti 'B' antibodies in his blood plasma

B. A person of 'B' blood group can't donate blood to a person of 'A' blood group

C. Blood group is designated on the basis of the presence of antibodies in the blood plasma

D. A person of AB blood group is universal recipient.

Answer: C

 Watch Video Solution

Exercise I Blood Groups

1. Erythroblastosis foetalis develops in newborn due to incomplatibility between

A. Rh^+ husband and Rh^- wife

B. Rh^+ foetus and Rh^- mother

C. Rh^- husband Rh^+ wife

D. Rh^- foetus and Rh^+ mother

Answer: B

Watch Video Solution

2. The antibodies anti A and anti B are

A. Ig G type present in plasma

B. Ig A type present on RBC

C. Ig M type present in plasma

D. Ig G type present on RBC

Answer: C

Watch Video Solution

3. Universal donor blood group is

A. B^-

B. A^+

C. O^+

D. O^-

Answer: D

Watch Video Solution

4. AB group persons are considered universal recepeints because

A. both the antigens are present on RBC

B. both the antibodies are present in plasma

C. agglutinins are absent in plasma

D. agglutinogens are absent on RBC

Answer: C

 Watch Video Solution

5. Natural antibodies are absent for the antigen

A. A

B. B

C. D

D. All the above

Answer: C

Watch Video Solution

6. A,B and O blood groups were discovered by

A. Landsteiner

B. Weiner

C. Levine

D. Bernstein

Answer: A

Watch Video Solution

7. The genotype of blood group 'A' is

A. $I^A I^A / I^A I^O$

B. $I^B I^B / I^B I^O$

C. $I^A I^B$

D. $I^O I^O$

Answer: A

Watch Video Solution

8. The genotype of blood group 'B' is `

A. $I^A I^A / I^A I^O$

B. $I^B I^B / I^B I^O$

C. $I^A I^B$

D. $I^O I^O$

Answer: B

Watch Video Solution

9. The genotype of blood group 'AB' is `

A. $I^A I^A / I^A I^O$

B. $I^B I^B / I^B I^O$

C. $I^A I^B$

D. $I^O I^O$

Answer: C

Watch Video Solution

10. The number of types of blood group phenotypes that can be produced by the human blood groups alleles A,B, and O is

A. One

B. Two

C. Three

D. Four

Answer: D

 Watch Video Solution

11. The number of types of genotypes that can be produced by the multiple alleles A, B, O that determine human blood groups is

A. Three

B. Four

C. Five

D. Six

Answer: D

Watch Video Solution

12. The blood groups A, B, AB and O are classified on the basis of the type of antigen present on

A. RBC

B. WBC

C. Plasma

D. Thrombocytes

Answer: A

 Watch Video Solution

13. The blood groups will have their respective anti bodies in the

A. RBC

B. WBC

C. Plasma

D. Thrombocytes

Answer: B

Watch Video Solution

14. If a clump is formed with anti A and anti B antisera the blood group is

A. AB

B. A or B

C. O

D. A,B and AB

Answer: A

Watch Video Solution

15. An O-group child cannot have parents of blood groups.

A. B and B

B. A and B

C. O and O

D. AB and O

Answer: D

 Watch Video Solution

Exercise I Coagulation Of Blood

1. In blood clothing, fibrins are formed from inactive fibrinogen by the enzyme

A. thrombin

B. thrombokinase

C. creatine kinase

D. heparin

Answer: A

Watch Video Solution

2. Which of the following ions play important role in blood clotting?

A. Mg^{+2}

B. Na^{+}

C. K^{+}

D. Ca^{+2}

Answer: D

Watch Video Solution

3. Conversion of soluble fibrin into insoluble fibrin is made possible in the presence of

A. factor X

B. factor XIII

C. factor XII

D. factor IX

Answer: B

Watch Video Solution

4. Which of the following is antagonistic to vitamin-K in the synthesis of clotting factors ?

A. Heparin

B. Antithrombin

C. Warfarin

D. Haemolysin

Answer: C

Watch Video Solution

5. Which of the following is useful to prevent the action of thrombin?

A. Prothrombin

B. Prothrombinase

C. Thromboplastin

D. Heparin

Answer: D

Watch Video Solution

6. Plasma thromboplastin component is known as

A. Stuart factor

B. Hageman factor

C. Christmas factor

D. Labile factor

Answer: C

Watch Video Solution

7. If the thrombus floats in the blood, it is called

A. Thrombus

B. Embolus

C. Aneurysm

D. Haematoma

Answer: B

Watch Video Solution

Exercise I Lymph Tissue Fluid

1. Which of the following lymphoid organ is not a part of digestive system?

A. Appendix

B. Tonsils

C. Peyer's patches

D. Spleen

Answer: D

Watch Video Solution

2. After digestion, chylomicrons from the small intestine are collected by the vessel

A. thoracic duct

B. right lymphatic duct

C. lactiferous duct

D. right subclavian vein

Answer: A

Watch Video Solution

Exercise I Circulatory Pathways

1. Advantage of closed circulatory system is

A. Capillaries are present

B. Blood is not coming into contact with tissues

C. Blood pressure is regulated

D. Oxygen is directly supplied to tissues

Answer: C

Watch Video Solution

2. Which of these has a closed type of circulatory system?

A. Palamnaeus

B. Labeo

C. Aplysia

D. Periplaneta

Answer: B

Watch Video Solution

Exercise I Human Circulatory System

1. Mitral valve is present in between

A. left and right ventricles

B. right and left atria

C. left atrium and ventricle

D. right atrium and ventricle

Answer: C

Watch Video Solution

2. Sino-atrial node is present in

A. left ventricle

B. right ventricle

C. left atrium

D. right atrium

Answer: D

Watch Video Solution

3. Atrio-ventricular node is present in

A. interventricular septum

B. bundle of His

C. interatrial septum

D. coronary sulcus

Answer: C

 Watch Video Solution

4. Chordie tendinae are made of

A. elastic fibres

B. nerve fibres

C. collagen fibres

D. muscle fibres

Answer: C

 Watch Video Solution

5. Valve of Thebesius is present at the opening of

A. postcaval into right atrium

B. coronary sinus into right atrium

C. precaval into right atrium

D. pulmonary veins into left atrium

Answer: B

Watch Video Solution

6. Muscular ridges present inside each ventricle are

A. Trabeculae carneae

B. Chordae tendineae

C. Papillary muscles

D. Pectinate muscles

Answer: A

Watch Video Solution

7. AV bundle/Bundle of HIS is located in

A. atrioventricular septum

B. inter atrial septum

C. interventricular septum

D. the walls of right atrium

Answer: C

Watch Video Solution

8. urkinje fibres are specialised

A. nerve fibres

B. muscle fibres

C. collagen fibres

D. elastic fibres

Answer: B

Watch Video Solution

9. Which of the following structures are absent in the heart of adult humans?

A. Ductus arteriosus

B. Ligamentum arteriosus

C. Fossa ovalis

D. Columnae carneae

Answer: A

Watch Video Solution

10. Tiny blood vessels supplying blood to the tissues of larger vessel walls are

A. vasa vasorum

B. vasa efferentia

C. vasa varicosa

D. vasa recta

Answer: A

Watch Video Solution

11. Blood vessel in mammals that carries relatively least quantity of nitrogenous wastes

A. Hepatic veins

B. Renal vein

C. Renal artery

D. Posterior vena cava

Answer: B

Watch Video Solution

12. Both pulmonary and renal arteries

A. Contain oxygenated blood

B. Have internal valves

C. Deliver O_2 to the organs they supply

D. Have a thick wall and narrow lumen

Answer: D

Watch Video Solution

13. p^H of blood in arteries and veins is

A. More in veins and less in arteries

B. More in arteries and less in veins

C. Same

D. Not definite

Answer: B

Watch Video Solution

14. A vein differs from an artery in having

A. Narrow lumen

B. Strongly muscular wall

C. Only outer elastic lamina

D. Valves to control direction of flow of blood

Answer: D

Watch Video Solution

15. In mammals, which blood vessel would normally carry largest amount of urea

A. Dorsal aorta

B. Hepatic vein

C. Renal vein

D. Hepatic portal vein

Answer: B

Watch Video Solution

16. In embryonic stages. Eustachian valve directs the blood from post caval vein into

A. Right atrium

B. Right ventricle

C. Left atrium

D. Left ventricle

Answer: C

Watch Video Solution

17. The reverse flow of the blood from the left systemic arch or from the pulmonary arch is prevented by

A. Mitral valve

B. Tricuspid valve

C. Semilunar valves

D. Eustachian valve

Answer: C

Watch Video Solution

18. Fossa ovalis is present on septum separating

A. Atria

B. Ventricles

C. Sinus venosus

D. Aortae

Answer: A

Watch Video Solution

19. Which of the following is absent in the walls of veins ?

A. Smooth muscles

B. Outer elastic lamina

C. Inner elastic lamina

D. Tunica adventitia

Answer: B

Watch Video Solution

20. Coronary arteries arise from

A. Left systemic aorta

B. Dorsal aorta

C. Pulmonary aorta

D. Carotid artery

Answer: A

Watch Video Solution

21. The amount of bicarbonates is relatively more in

A. Pulmonary veins

B. Systemic arteries

C. Precaval vein

D. Coronary arteries

Answer: C

Watch Video Solution

22. The second heart sound (dub2) is associated with the closure of

A. tricuspid valve

B. semilunar valves

C. bicuspid valve

D. tricuspid and bicuspid valves.

Answer: B

 Watch Video Solution

23. Read the following statements and choose the correct option

Statement-1 : Atria receive blood from all parts of the body which subsequently flows to

ventricles.

Statement-2 : Action potential generated at sino-atrial node passes from atria to ventricles.

A. Action mentioned in Statement-1 is dependent on action mentioned in Statement-2.

B. Action mentioned in Stateinent-2 is dependent on action mentioned in Statement-1

C. Actions mentioned in Statements-1 and 2 are independent of each other.

D. Actions mentioned in Statements-1 and 2 are synchronous.

Answer: C

Watch Video Solution

Exercise I Cardiac Cycle

1. Action potentials are generated at maximum frequency by

A. bundle of His

B. Purkinje fibres

C. SAN

D. ventricles

Answer: C

Watch Video Solution

2. During joint diastole of heart which valves are closed?

A. Tricuspid valve

B. Bicuspid valve

C. Semilunar valves

D. Mitral valve

Answer: C

Watch Video Solution

3. When the ventricular pressure is low these valves get closed ?

A. Tricuspid valve

B. Bicuspid valve

C. Semilunar valves

D. Mitral valve

Answer: C

Watch Video Solution

4. Beat volume is

A. 30mL

B. 5L

C. 100mL

D. 70mL

Answer: D

Watch Video Solution

5. Cardiac output means, the amount of blood pumped out in

A. one day

B. one hour

C. one minute

D. one second

Answer: C

 Watch Video Solution

6. The second heart sound is produced

A. during ventricular systole by the closure of semilunar valves

B. by the closure of atrioventricular valves during ventricular systole

C. during diastole by the closure of semilunar valves

D. by the closure of tricuspid and bicuspid valves during joint diastole.

Answer: C

Watch Video Solution

7. Study the following statements with respect to human cardiovascular system and choose the correct one.

A. All the openings that allow the flow of deoxygenated blood into right atrium are guarded by valves whereas the

openings of pulmonary veins have no valves

B. 'AVN' is seen in the lower right corner of the right atrium postero inferior region of the inter atrial septum

C. The semilunar valves of aortic arches are closed during ventricular filling.

D. Tricuspid and bicuspid valves are inter connected by chordae tendineae

Answer: C

Watch Video Solution

8. In adult human heart valves that allow the flow of oxygenated blood are

A. Valve of Thebesius and mitral valve

B. Eustachian valve and pulmonary valve

C. Tricuspid valve and aortic valve

D. Mitral valve and aortic valve

Answer: D

Watch Video Solution

9. A portal vein is

A. A vein starts from an organ and ends in the heart

B. A vein enters into an organ other than the heart and breaks up into capillaries

C. An artery breaks up in an organ and restarts by union of these capillaries

D. The blood from gut is brought into kidneys before it is poured into posterior vena cava

Answer: B

 Watch Video Solution

10. Right atrium of heart of mammal receives blood from

A. Sinus venosus

B. Pulmonary veins

C. Pulmonary aorta

D. Precaval vein and postcaval vein

Answer: D

Watch Video Solution

11. Sinu-atrial node initiates the wave of contraction when

A. Only right atrium is full

B. Only left atrium is full

C. Both atria are full

D. Both ventricles are full

Answer: C

Watch Video Solution

12. Atrioventricular valves are opened due to

A. Decreased pressure in aorta

B. Increased pressure in atria

C. Decreased pressure in ventricles

D. Increased pressure in ventricles

Answer: C

Watch Video Solution

13. The volume of blood present in each ventricle before the beginning of atrial systole and at the end of joint diastole is.

A. 21mL

B. 70mL

C. 49mL

D. 99mL

Answer: D

Watch Video Solution

14. Which among the following is correct during each cardiac cycle?

A. The volume of blood pumped out by the Rt and Lt ventricles is same

B. The volume of blood pumped out by the Rt and Lt ventricles is different.

C. The volume of blood received by each atrium is different.

D. The volume of blood received by the aorta and pulmonary artery is different.

Answer: A

 Watch Video Solution

15. Cardiac activity could be moderated by the autonomous neural system. Tick the correct answer.

A. The parasympathetic system stimulates heart rate and stroke volume.

B. The sympathetic system stimulates heart rate and stroke volume.

C. The parasympathetic system decreases the heart rate but increase stroke

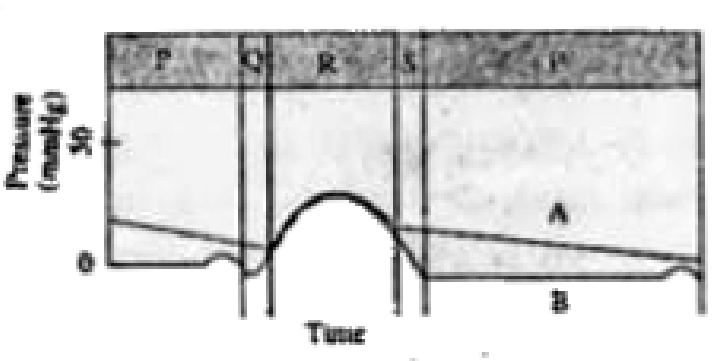
volume

D. The sympathetic system decreases the heart rate but increase stroke volume.

Answer: B

16. Mark the pair of substances among the following which is essential for coagulation of

blood.



A. Heparin and calcium ions

B. Calcium ions and platelet factors

C. Oxalates and citrates

D. Platelet factors and heparin

Answer: B

Watch Video Solution

17. What would be the cardiac output of a person having 72 heart beats per minute and a stroke volume of 50 mL?

A. 360 mL

B. 3600 mL

C. 7200 mL

D. 5000 mL

Answer: B

Watch Video Solution

Exercise I Electrocardiography

1. In an ECG atrial depolarization is represented by

A. QRS complex

B. T wave

C. P wave

D. all of these

Answer: C

 Watch Video Solution

2. The end of ventricular systole of a cardiac cycle in ECG is marked by

A. QRS complex

B. P wave

C. 2 wave

D. T wave

Answer: D

 Watch Video Solution

3. In ECG, enlarged ventricles is represented by enlarged

A. P wave

B. Q wave

C. R wave

D. T wave

Answer: C

Watch Video Solution

4. In ECG shortened Q-T interval indicates

A. hypercalcemia

B. Q wave

C. hypokalemia

D. hypocalcemia

Answer: A

Watch Video Solution

5. In ECG P-R interval is prolonged due to

A. myocardial ischemia

B. bradycardia

C. tachycardia

D. cardiomegaly

Answer: B

Watch Video Solution

6. ECG depicts the depolarisation and repolarisation processes during the cardiac cycle. In the ECG of a norinal healthy individual one of the following waves is not represented.

A. Depolarisation of atria

B. Repolarisation of atria

C. Depolarisation of ventricles

D. Repolarisation of ventricles

Answer: B

Watch Video Solution

7. Which of the following correctly explains a phase/event in cardiac cycle in a standard electrocardiogram?

A. QRS complex indicates atrial contraction.

B. QRS complex indicates ventricular contraction

C. Time between S and T represents atrial systole.

D. P-wave indicates beginning of ventricular contraction

Answer: B

Watch Video Solution

Exercise I Double Circulation Regulation Of Cardiac Activity

1. The vascular connection lies between digestive tract and liver is

A. hepatic portal system

B. lymphatic system

C. coronary system

D. renal portal system

Answer: A

 Watch Video Solution

2. Part of brain containing a centre to moderate the cardiac function through ANS is

A. cerebrum

B. medulla oblongata

C. diencephalon

D. cerebellum

Answer: B

Watch Video Solution

3. Cardiac output can be increased due to these hormones

A. pancreatic hormones

B. adrenal cortical hormones

C. adrenal medullary hormones

D. parathyroid hormone

Answer: C

Watch Video Solution

4. Which of the following decreases the heart beat?

A. Epinephrine

B. Norepinephrine

C. Thyroxine

D. Acetylcholine

Answer: D

Watch Video Solution

5. A condition in which heart is not pumping the blood effectively to meet the requirements of the body is

A. heart attack

B. hypertension

C. myocardial infarction

D. heart failure

Answer: D

Watch Video Solution

6. This one is often referred as atherosclerosis

A. CAD

B. angina

C. hypertension

D. all of these

Answer: A

Watch Video Solution

7. Decrease in the lumen of arteries is called

A. arteriosclerosis

B. ischaemia

C. atherosclerosis

D. arrythmia

Answer: C

Watch Video Solution

8. Angina pectoris is

A. congestion in lungs

B. acute chest pain

C. obstruction in blood flow

D. heart failure

Answer: B

Watch Video Solution

Exercise I Disorders Of Circulatory System

1. In hypertension, the systolic pressure will be

A. 80mm Hg

B. 120mm Hg

C. 140mm Hg

D. 90mm Hg

Answer: C

Watch Video Solution

Exercise Ii Blood

1. These act as acid-base buffers in plasma

A. Na^+ and HCO_3^-

B. Mg^{++} and Cl^{-}

C. Plasma proteins

D. Enzymes and Hormones

Answer: C

Watch Video Solution

2. Antibodies produced by B-cells are

A. Beta globulins

B. Alpha globulins

C. Serum albumins

D. Gamma globulins

Answer: D

Watch Video Solution

3. Read the following statements

a) The average life span of RBCs in man is about 120 days.

b) The worn out RBCs are destroyed only in

the spleen so that it is called the graveyard of RBCs.

A. Both (a) and (b) are true

B. Both (a) and (b) are false

C. Only (a) is true but (b) is false

D. Only (b) is true but (a) is false

Answer: C

 Watch Video Solution

4. In a healthy individual, the total leucocyte count per cubic millimeter of blood under normal conditions is

A. 6000-8000

B. 7000-9000

C. 10000-12000

D. 11000-13000

Answer: A

 Watch Video Solution

5. Pick out the agranulocytes from the following

A. Acidophils and basophils

B. Lymphocytes and monocytes

C. Neutropils and monocytes

D. Eosinophils and lymphocytes

Answer: B

Watch Video Solution

6. Read the following statements about WBCs and select the correct option

1) Lymphocytes are responsible for immune responses of the body

2) Basophils are least in number among white blood cells.

3) Eosinophils can engulf antigen-antibody complexes

4) Monocytes are the only phagocytic ceils of blood so that they are waited internal scavengers.

A. only a and c are true

B. only b and c are true

C. only b, c and d are true

D. only a, b & c are true

Answer: D

 Watch Video Solution

7. A reduction in number of these can lead to clotting disorders

A. Thrombocytes

B. Dendritic cells

C. Basophils

D. Histamine and serotonins

Answer: A

 Watch Video Solution

8. Formed elements constitute nearly__ per cent of the blood

A. 45

B. 55

C. 92

D. $8 - 10$

Answer: A

Watch Video Solution

9. True for mammalian RBCs

A. Nucleated and biconcave in shape

B. Enucleated and biconcave in shape

C. Enucleated and oval in shape

D. Nucleated and biconvex in shape

Answer: B

Watch Video Solution

10. Which of the following is a granulocyte?

A. Lymphocyte

B. Eosinophil

C. Megakaryocyte

D. Monocyte

Answer: B

Exercise Ii Blood Groups

1. More than two allelic forms existing for certain genes is termed as

A. Pleiotropy

B. Polygenic traits

C. Epistasis

D. Multiple alleles

Answer: D

Watch Video Solution

2. The following pair of human blood group alleles are codominant.

A. $I^O I^O$

B. $I^A I^O$

C. $I^B I^O$

D. $I^A I^B$

Answer: D

Watch Video Solution

3. The blood group in which A and B antigens are absent

A. O

B. A

C. B

D. AB

Answer: A

Watch Video Solution

4. The genotype of blood group O is

A. $I^A I^A / I^A I^O$

B. $I^B I^B / I^B I^O$

C. $I^A I^B$

D. $I^O I^O$

Answer: D

Watch Video Solution

5. Each of the progeny have 25% chance of their blood group being O/A/B/AB when their parents are

A. $A \times AB$

B. $O \times AB$

C. $A \times B$

D. $AB \times AB$

Answer: C

Watch Video Solution

6. The blood group which forms clump with only anti B antiserum

A. AB

B. B

C. AB and B

D. O

Answer: B

 Watch Video Solution

7. A,AB and B blood groups are formed in $1:2:1$ ratio by

A. $I^A I^O \times I^A I^B$

B. $I^A I^B \times I^A I^B$

C. $I^B I^O \times I^A I^B$

D. All these

Answer: B

Watch Video Solution

8. A couple has only A and O blood group children in 3:1 ratio if father's blood group is A, mother's blood group is

A. O

B. A

C. A or O

D. B

Answer: B

Watch Video Solution

9. Genotype of A-group fatehr of O-group child would be

A. $I^A I^A$

B. $I^A i$

C. $I^A I^B$

D. ii

Answer: B

Watch Video Solution

10. Rh blood group was discovered by

A. Levine and Bateson

B. Weiner and Winchester

C. Landsteiner and Morgan Levine

D. Landsteiner, Levine

Answer: D

Watch Video Solution

11. According to Fisher, Rh antigen is controlled by how many closely linked genes?

A. 3

B. 4

C. 5

D. 6

Answer: A

Watch Video Solution

12. Rh factor is

A. An antibody

B. An antigen.

C. A Pleiotropy

D. A polygenic trait

Answer: B

Watch Video Solution

13. Rh factor derived its name on the basis of

A. Chimpanzee

B. Gorilla

C. Rhesus monkey

D. Rat

Answer: C

Watch Video Solution

14. Match the following and select the correct option

List -I Blood groups of parents	List -II Blood groups of babies
A) AB × O	I) O
B) A × B	II) B
C) O × O	III) A
D) B × O	IV) AB

Watch Video Solution

15. Match the following and select the correct option

List -I Blood group	List -II Can not be given to
A) O	I) A and O
B) AB	II) A, B and O
C) A	III) Not applicable
D) B	IV) B and O

Watch Video Solution

Exercise Ii Coagulation Of Blood

1. The substance that keeps prothrombin in inactive state is

A. prothrombin

B. antithrombin

C. thrombokinase

D. thromboplastin

Answer: B

 Watch Video Solution

2. This one is used during haemodialysis to prevent blood coagulation

A. Warfarin

B. Haemolysin

C. Heparin

D. Hirudin

Answer: C

Watch Video Solution

3. Which of the following substance, if introduced into the blood stream, would cause coagulation of blood at the site of its introduction?

A. Thromboplastin

B. Heparin

C. Prothrombin

D. Fibrinogen

Answer: A

Watch Video Solution

Watch Video Solution

4. Factor X is produced by

A. injured endothelium

B. damaged tissues

C. liver

D. spleen

Answer: C

Watch Video Solution

5. Factor causing clot retraction is released by

A. liver

B. traumatised tissues

C. thrombocytes

D. mast cells

Answer: C

Watch Video Solution

6. The enzyme complex formed by cascade reactions during blood clotting is called

A. thrombin

B. fibrin

C. thrombokinase

D. thromboplastin

Answer: C

Watch Video Solution

7. Which is used to prevent bleeding?

A. Vitamin K

B. Vitamin C

C. Vitamin A

D. Vitamin B

Answer: A

Watch Video Solution

Exercise Ii Lymph

1. Lymph from abdominal region is finally collected by

A. right lymphatic duet

B. chyliferous duct

C. right subclavian vein

D. left internal jugular vein

Answer: B

Watch Video Solution

2. Primary lymphoid organ on the ventral side of heart is

A. spleen

B. thyroid

C. thymus

D. adenoid

Answer: C

Watch Video Solution

Exercise Ii Circulatory Pathways

1. Blood flow changes are least during exercise in

A. Stomach

B. Brain

C. Skin

D. Kidney

Answer: B

Watch Video Solution

2. Which of the following types of circulation is absent in mammals?

A. Hepatic portal system

B. Renal portal system

C. Hypophyseal portal system

D. Coronary system of circulation.

Answer: B

Watch Video Solution

3. In which of the following animals blood from the respiratory organs does not return to heart but goes to tissues directly?

A. Amphibians

B. Fishes

C. Birds

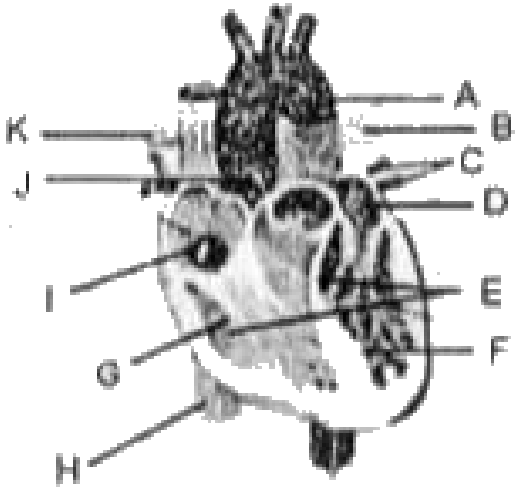
D. Reptiles

Answer: B

Watch Video Solution

Exercise Ii Human Circulatory System

1. In diagram of the vertical section of human heart given here, certain parts have been indicated by alphabets. Choose the answer in which these alphabets have been correctly matched with the parts they indicate



A. A-Aorta, B-Pulmonary vein, C-Pulmonary arteries, D-Left ventricle, E-Semilunar valves, F-Left atrium, G-Right atrium, H-Superior venacava, I-Right ventricle, J-Tricuspid valves, K-Inferior venacava

B. A-Aorta, B-Pulmonary artery, C-Pulmonary veins, D-Left atrium, E-Tricuspid valves and mitral valves, F-Left ventricle, G-Right ventricle, H-Inferior venacava, I-Right

atrium J-Semilunar valves, K-Superior venacava

C. A-Aorta, B-Superior venacava, C-Inferior venacava, D-Right ventricle, E-Tricuspid valves and mitral valves, F-Right atrium, G- Left atrium, H-Pulmonary vein, I-Left ventricle, J-Semilunar valves, K-Pulmonary artery

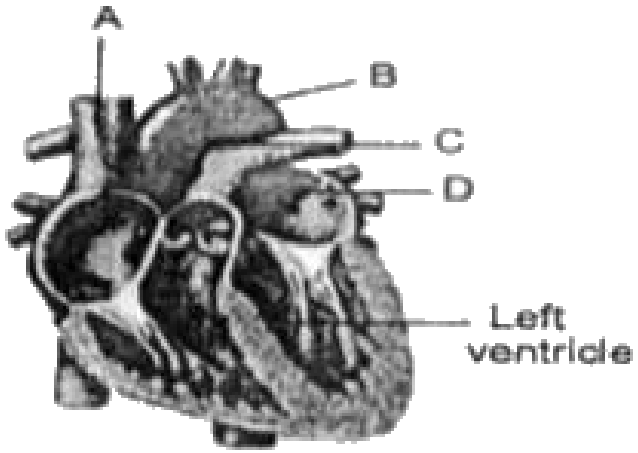
D. A-Aorta, B-Superior venacava, C-Inferior venacava, D-Left ventricle, E- Semilunar

valves, F-Left atrium, G-Right atrium, H-Pulmonary artery, I-Right ventricle, J-Tricuspid valves, K-Pulmonary vein

Answer: B

Watch Video Solution

2. The diagram shows the heart with its main blood vessels



Which blood vessels carry oxygenated blood to the body tissues and deoxygenated blood away from the body tissues ?

	Oxygenated blood to body tissues	Deoxygenated blood away from body tissues
1)	B	A
2)	B	C
3)	C	A
4)	C	D

Watch Video Solution

3. The coronary sinus in the heart is situated along its

A. left margin

B. right margin

C. diaphragmatic surface

D. lower border of the heart

Answer: B

Watch Video Solution

4. Artificial pacemaker is implanted when there is damage to

A. SA node

B. AV node

C. both SA node and AV nodes

D. AV bundle

Answer: C

Watch Video Solution

5. Blood flow from arteries to capillaries is regulated by

A. arterioles

B. pre capillary sphincters

C. valves in the heart

D. tunica externa of arteries

Answer: A

Watch Video Solution

6. Blood volume in capillaries is

A. $10\ \%$

B. $20\ \%$

C. $5 - 7\ \%$

D. $7 - 10\ \%$

Answer: C

Watch Video Solution

7. ASD hole is present

A. in the interatrial septum

B. in the interventricular septum

C. between Aorta and pulmonary artery

D. all of these

Answer: A

 Watch Video Solution

8. The hole present in the interventricular septum is called

A. ASD hole

B. VSD hole

C. PDA

D. None of these

Answer: B

Watch Video Solution

9. Heart pumps blood more forcefully in older persons than in younger persons due to

A. decrease in O_2 content of blood

B. decrease in elasticity of arteries

C. fall in nutritional content of blood

D. increase in elasticity of arteries

Answer: B

Watch Video Solution

10. Fastest distribution of some injectable material/ medicine and with no risk of any kind can be achieved by injecting it into the

A. muscles

B. arteries

C. veins

D. lymph vessels

Answer: C

Watch Video Solution

Exercise Ii Cardiac Cycle

1. Second heart sound is

A. 'dup' at the beginning of diastole

B. lubb' at the beginning of systole

C. 'lubb' at the end of systole

D. 'dup' at the end of diastole

Answer: A

Watch Video Solution

2. Which among the following is correct during each cardiac cycle?

A. The volume of blood pumped by each right and left ventricle is same

B. The volume of blood pumped by right and left ventricle is different

C. The volume of blood pumped by each atrium is different

D. The volume of blood received by aorta and pulmonary artery is different

Answer: A

3. The correct pathway of initiation and passing route of conduction of impulse is

A. SA node AV node Purkinje fibre AV bundle

B. SA node Purkinje fibre AV node AV bundle

C. SA node AV node AV bundle Purkinje fibre

D. SA node Purkinje fibre AV bundle AV node

Answer: C

Watch Video Solution

4. Heart murmurs are produced due to

A. weakness in myocardium

B. faulty and incompetent heart valves

C. defective conduction system

D. myocardial ischemia

Answer: B

 Watch Video Solution

5. End systolic volume of blood is the quantity of blood present

A. in ventricles after atrial systole

B. in ventricles after ventricular systole

C. in ventricles before the opening of semilunar valves

D. in atria before the closure of AV valves.

Answer: B

Watch Video Solution

6. Passive ventricular filling occurs

A. during joint diastole

B. only during atrial systole

C. throughout atrial diastole

D. throughout ventricular diastole.

Answer: A

Watch Video Solution

7. In a cardiac cycle, the interval is shorter between

A. lubb and dup sounds

B. dup and lub sounds

C. lubb and lubb sounds

D. dup and dup sounds

Answer: A

Watch Video Solution

8. Heart murmurs are produced due to

A. failure in the opening of valve

B. inefficient pumping of blood from ventricles.

C. failure of valves to close tightly causing leakage of blood.

D. irregular heart beat.

Answer: C

 Watch Video Solution

9. The difference between maximum and resting cardiac output of a person is called

A. stroke volume

B. reserve volume

C. cardiac reserve

D. residual volume

Answer: C

Watch Video Solution

10. Pulse is generally taken on the

A. brachial artery

B. subclavian vein

C. radial artery

D. subclavian artery

Answer: C

 Watch Video Solution

11. Perecentage of total blood pumped into human kidneys in each cardiac output is:

A. $15\ \%$

B. $20\ \%$

C. $25\ \%$

D. $50\ \%$

Answer: B

Watch Video Solution

12. In human beings, how much blood is pumped to brain per minute?

A. 0.5 litre

B. 1.2 litre

C. 0.75 litre

D. 1.5 litre

Answer: C

Watch Video Solution

Exercise Ii Electrocardiagraphy

1. Which of the following is not represented in normal human ECG?

A. Depolarisation of atria

B. Depolarisation of ventricles

C. Repolarisation of atria

D. Repolarisation of ventricles

Answer: C

Watch Video Solution

2. Absolute refractory period of heart is during

A. contraction when the heart is in non responding period

B. expansion

C. negative charge

D. positive charge

Answer: A

 Watch Video Solution

Exercise Ii Double Circulation Regulation Of Cardiac Activity

1. Extrinsic regulation of cardiac activity is brought about by

A. Thyroxine and nodal tissue

B. Epinephrine and Thyroxine

C. Sympathetic division and nodal tissue

D. Nodal tissue and epinephrine

Answer: B

Watch Video Solution

2. Adrenaline directly affects

A. SA node

B. β - cells of langerhans

C. dorsal root of spinal cord

D. epithelial cells of stomach

Answer: A

Watch Video Solution

Exercise Ii Disorders Of Circulatory System

1. When cardiac muscles degenerate into fibrous tissues due to inflammation of the myocardium, the disease is called

A. pericarditis

B. endocarditis

C. peritonitis

D. cardiomyopathy

Answer: D

Watch Video Solution

2. Cardiac compression used to revive the heart beat is known as

A. artificial ventilation

B. cardiopulmonary resuscitation

C. coronary angioplasty

D. artificial fibrillation

Answer: B

Watch Video Solution

3. Pulse pressure in a normal healthy person is

A. 80 mm Hg

B. 40 mm Hg

C. 60 mm Hg

D. 70 mm Hg

Answer: B

Watch Video Solution

4. Which of the following drugs are not used in the treatment of hypertension?

A. vasodilators

B. diuretics

C. vasoconstrictors

D. reserpine

Answer: C

Watch Video Solution

5. Heart valvular stenosis is caused by

A. Rheumatic fever

B. Dengue fever

C. Plague

D. Rheumatoid arthritis

Answer: A

Watch Video Solution

6. A thin and weakened part of the wall of blood vessel that bulges out as a balloon like structure is called

A. aneurysm

B. abscess

C. thrombus

D. haemotoma

Answer: A

Watch Video Solution

7. Blood pressure is defined as the force with which blood

A. pushes against the wall of the blood vessels

B. is pushed to the legs

C. comes out of the atrium

D. comes out of the ventricle

Answer: A

Watch Video Solution

8. The drug prescribed by doctors to the people with angina pectoris problem is

A. paracetamol

B. acetaminophen

C. aspirin

D. antihistamine

Answer: C

Watch Video Solution

Exercise Iii Previous Aipmt Neet Questions

1. The hepatic portal vein drains blood to liver form

A. Heart

B. Stomach

C. Kidneys

D. Intestine

Answer: D

Watch Video Solution

2. Adult human RBCs are enucleate. Which of the following statement (s)/are not most appropriate explanation for this feature?

a) they do not need to reproduce

b) they are somatic cells

c) They do not metabolize

d) All their internal space is available for oxygen transport

A. only (d)

B. Only (a)

C. (a), (c) and (d)

D. (b) and (c)

Answer: A

 Watch Video Solution

3. A decrease in blood pressure / volume will not cause the release of :

A. Renin

B. Atrial natriuretic factor

C. Aldosterone

D. ADH

Answer: B

 Watch Video Solution

4. Blood pressure in the pulmonary artery is

A. same as that in aorta

B. more than that in the carotid

C. more than that in pulmonary vein

D. less than that in venacavae

Answer: C

Watch Video Solution

5. In mammals, which blood vessel would normally carry largest amount of urea

A. Renal vein

B. Dorsal aorta

C. Hepatic vein

D. Hepatic portal vein

Answer: C

Watch Video Solution

6. Which of the following is correct?

A. Serum = Blood + fibrinogen

B. Lymph = Plasma + RBC + WBC

C. Blood = Plasma + RBC + WBC

D. Plasma = Blood - Lymphocytes

Answer: C

Watch Video Solution

7. Erythropoiesis starts in

A. liver

B. spleen

C. red bone marrow

D. kidney

Answer: A

Watch Video Solution

8. BP in systemic aorta is maximum during

A. diastole of right ventricle

B. systole of left ventricle

C. diastole of right atrium

D. systole of left atrium

Answer: B

Watch Video Solution

9. Person with blood group AB is considered as universal recipient because he has

A. Both A and B antigens on RBC but no antibodies in the plasma

B. Both A and B antibodies in the plasma

C. No antigen on RBC and no antibody in the plasma

D. Both A and B antigens in the plasma but no antibodies

Answer: A

 Watch Video Solution

10. How do parasympathetic neural signals affect the working of the heart?

A. Reduce both heart rate and cardiac output

B. Heart rate is increased without affecting the cardiac output.

C. Both heart rate and cardiac increase

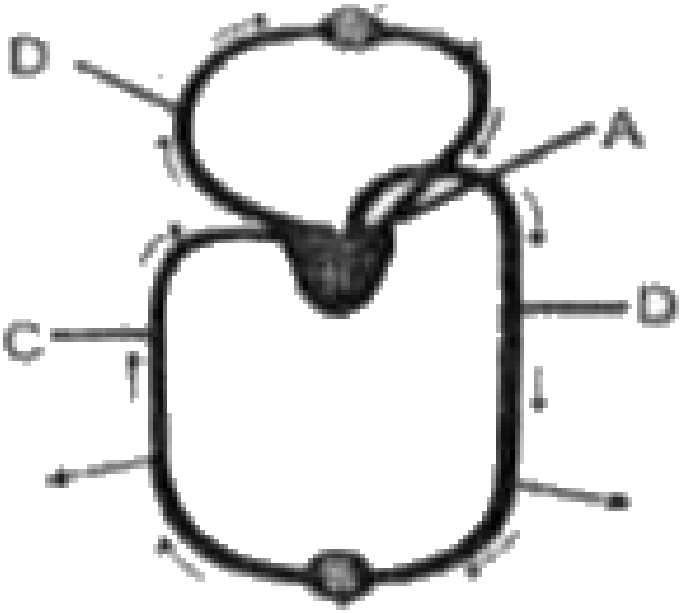
D. Heart rate decreases but cardiac output increases

Answer: A

Watch Video Solution

11. The given figure shows schematic plan of blood circulation in humans with labels A to D.

Identify the label and give its functions?



A. C-Vena cava- takes blood from body parts to right auricle, Pco_2 = 45 mm Hg

B. D-Dorsal aorta- takes blood from heart to body parts, $Po_2 = 95$ mm Hg

C. A- Pulmonary vein -takes impure blood from body parts, $Po_2 = 60$ mm Hg

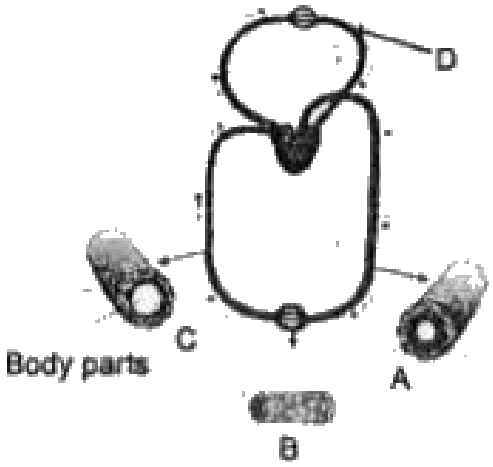
D. B-Pulmonary artery-takes blood from heart to lungs, $Po_2 = 90$ mm Hg

Answer: A

Watch Video Solution

12. The figure blood circulation in humans with labels A to D. Select the option which gives correct identification of label and functions of

the part



A. B-Capillary - Thin without muscle layer and wall two cell layers thick

B. C- Vein - Thin walled and blood flows in jerks/spurts

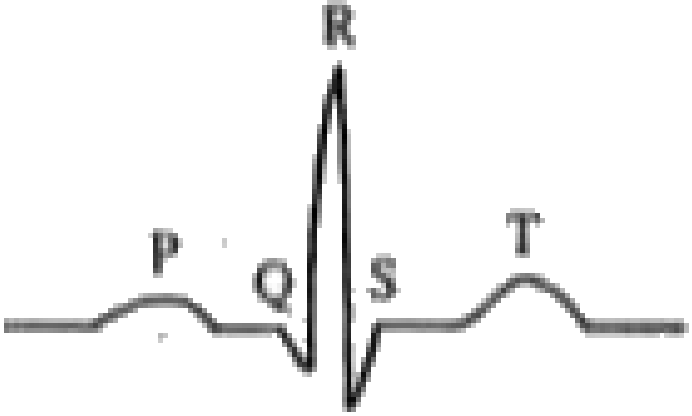
C. D-Pulmonary vein -takes oxygenated blood. to heart, Po_2 = 95 mmHg

D. A-Artery-Thick walled and blood flows evenly

Answer: C

Watch Video Solution

13. The diagram given here is the standard ECG of a normal person. The P-wave represents the



A. The beginning of the systole

B. End of systole

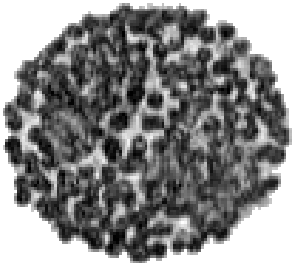
C. Contraction of both the artia

D. Initiation of the ventricular contraction

Answer: A

Watch Video Solution

14. The figure shows a human a human blood cell. Identify it and give its characteristics



Blood cell	Characteristics
1) Basophil	Secretes serotonin inflammatory response
2) B-Lymphocyte	Forms about 20% of blood cells involved in immune response
3) Neutrophil	Most abundant blood cells, phagocytic
4) Monocyte	Life span of 3 days, produces antibodies

Watch Video Solution

15. A certain road accident patient with unknown blood group needs immediate blood transfusion. His one doctor friend at once offers his blood. What was the blood group of the donor?

A. Blood group B

B. Blood group AB

C. Blood group O

D. Blood group A

Answer: C

Watch Video Solution

16. Which one of the following human organs is often called the "graveyard" of RBCs ?

A. Gall bladder

B. Kidney

C. Spleen

D. Liver

Answer: C

Watch Video Solution

17. 'Bundle of His' is a part of which one of the following organs in humans?

A. Brain

B. Heart

C. Kidney

D. Pancreas

Answer: B

 Watch Video Solution

18. Which one of the following plasma proteins is involved in the coagulation of blood?

A. Albumin

B. Serum amylase

C. Globulin

D. Fibrinogens

Answer: D

Watch Video Solution

19. Arteries are best defined as the vessels which

A. Supply oxygenated blood to the different organs

B. Carry blood away from the heart to different organs

C. Break up into capillaries which reunite to form a 'vein

D. Carry blood from one visceral organ to another visceral organ

Answer: B

Watch Video Solution

20. Which one of the following statements is correct regarding blood pressure?

A. 130/90 mm Hg is considered high and requires treatment

B. 100/55 mm Hg is considered an ideal blood pressure

C. 105/50 mmHg makes one very active

D. 190/110 mm Hg may harm vital organs like brain and kidney

Answer: D

Watch Video Solution

21. A person with unknown blood group under ABO system, has suffered much blood loss in an accident and needs immediate blood transfusion. His friend who has vaild certificate of his own blood type, offers for blood donation without delay. What would have been the type of blood group of the donor friend ?

A. Type B

B. Type AB

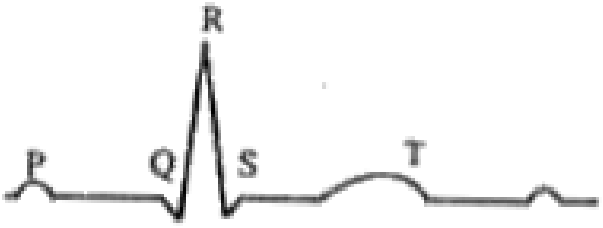
C. Type O

D. Type A

Answer: C

Watch Video Solution

22. Given below is the ECG of a normal human. Which one of its components is correctly interpreted below?



A. Complex QRS-one complete pulse

B. Peak T-inititation of total cardiac contraction

C. Peak P and peak R together - systolic and diastolic blood pressures

D. Peak P-initiation of left atrial contraction only

Answer: A

 Watch Video Solution

23. If due to some injury the chordae tendineae of the tricuspid value of the human heart is partially non-functional, what will be the immediate effect?

A. The flow of blood into the aorta will be slowed down

B. The 'pacemaker' will stop working

C. The blood will tend to flow into the left atrium

D. The flow of blood into the pulmonary artery will be reduced.

Answer: D

24. Which two of the following changes (1-4) usually tend to occur in the plain dwellers when they move to high altitudes?

(a) Increase in RBC size

(b) Increase in RBC production

(c) Increase in breathing rate

(d) Increased oxygen-binding capacity of haemoglobin

A. (ii) and (iii)

B. (iii) and (iv)

C. (i) and (iv)

D. (i) and (ii)

Answer: A

 Watch Video Solution

25. Fastest distribution of some injectable material/ medicine and with no risk of any kind can be achieved by injecting it into the

A. Muscles

B. Arteries

C. Veins

D. Lymph vessels

Answer: C

Watch Video Solution

26. Given below are four statements (i-iv) regarding human blood circulatory system

i) Arteries are thick-walled and have narrow lumen as compared to veins

ii) Angina is acute chest pain when the blood circulation to the brain is reduced

iii)Persons with blood group AB can donate blood to any person with any blood group under ABO system

iv)Calcium ions play a very important role in blood clotting

A. (i) and (iv)

B. (i) and (ii)

C. (ii) and (iii)

D. (iii) and (iv)

Answer: A

27. The haemoglobin content per 100 ml of blood of a normal healthy human adult is

A. 5-11 mg

B. 25- 30 mg

C. 17- 20 mg

D. 12-16 mg

Answer: D

Watch Video Solution

28. There is no DNA in

A. Mature RBCs

B. A mature spermatozoon

C. Hair root

D. An enucleated ovum

Answer: A

Watch Video Solution

29. In a standard ECG which one of the following alphabets is the correct representation of the respective activity of the human heart?

A. S- Start of systole

B. T- End of diastole

C. P-Depolarisation of the atria

D. R- Repolarisation of ventricles

Answer: C

Watch Video Solution

30. Globulins contained in human blood plasma are primarily involved in

A. Osmotic balance of body fluids

B. Oxygen transport in the blood

C. Clotting of blood

D. Defence mechanism of body

Answer: B

Watch Video Solution

31. Compared to blood our lymph has

A. Plasma without proteins

B. More WBCs and no RBCs

C. More RBCs and less WBCs

D. No plasma

Answer: B

 Watch Video Solution

32. In humans, blood passes from the post caval to the diastolic right atrium of heart due to

A. Stimulation of the sino-atrial node

B. Pressure difference between the post caval and atrium

C. Pushing open of the venous valves

D. Suction pull

Answer: B

 Watch Video Solution

33. The most active phagocytic white blood cells are

A. Eosinophils and lymphocytes

B. Neutrophils and monocytes

C. Neutrophils and eosinophils

D. Lymphocytes and macrophages

Answer: B

Watch Video Solution

34. Which type of white blood cells are concerned with the release of histamine and the natural anticoagulant heparin?

A. Eosinophils

B. Monocytes

C. Neutrophils

D. Basophils

Answer: D

 Watch Video Solution

35. A drop of each of the following is placed separately on four sides. Which of them will not coagulate ?

A. Blood serum

B. Sample from the thoracic duct of lymphatic system

C. Whole blood from pulmonary vein

D. Blood plasma

Answer: A

Watch Video Solution